

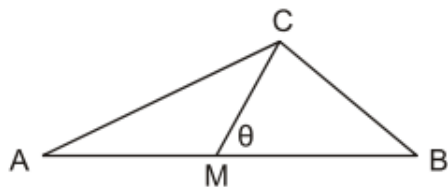


Trigonometry

2012

16 In the triangle ABC shown below (not to scale):

$$\tan A = \frac{1}{6} \text{ and } \tan B = \frac{2}{3}$$



M is the midpoint of AB.

What is the value of $\tan \theta$

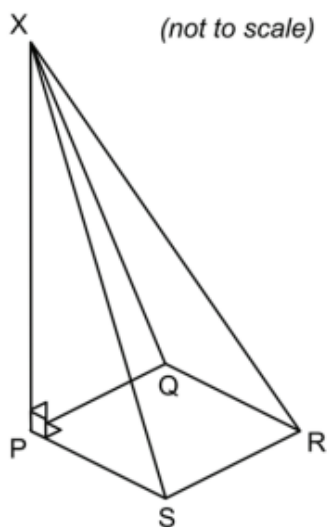
- A $\frac{1}{9}$
- B $\frac{5}{12}$
- C $\frac{4}{9}$
- D $\frac{1}{2}$
- E $\frac{5}{6}$



Trigonometry

2014

- 20 The diagram shows part of a glass structure. PQRS is a horizontal square with sides of 1 metre, and point X is 4 metres vertically above P.



What is the cosine of the angle that XR makes with the horizontal?

- A $\frac{1}{3}$
- B $\frac{\sqrt{2}}{4}$
- C $\frac{\sqrt{2}}{2\sqrt{3}}$
- D $\frac{4}{3\sqrt{2}}$
- E $\frac{2}{\sqrt{3}}$
- F $\frac{1}{\sqrt{17}}$
- G $\frac{1}{17}$



Trigonometry

2015

- 8 PQR is an isosceles triangle in which $PQ = PR = 6$ cm and $QR = 8$ cm.

What is the value of the tangent of angle PQR ?

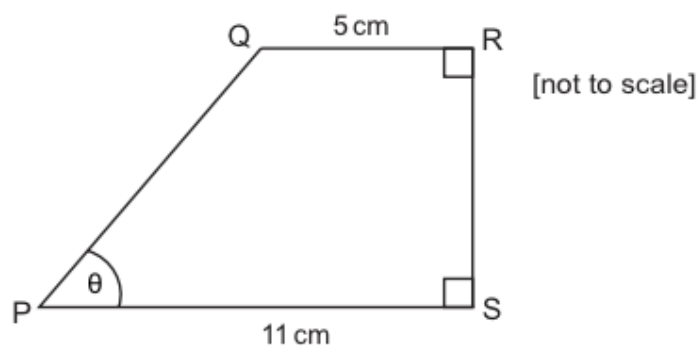
- A $\frac{2}{\sqrt{13}}$
- B $\frac{2}{\sqrt{5}}$
- C $\frac{2}{3}$
- D $\frac{3}{2}$
- E $\frac{\sqrt{5}}{2}$
- F $\frac{\sqrt{13}}{2}$



Trigonometry

2016

- 16 The diagram shows a quadrilateral PQRS.



Given that $\tan \theta = \frac{4}{3}$, what is the area of the quadrilateral PQRS?

- A 34 cm^2
- B 36 cm^2
- C 64 cm^2
- D 88 cm^2
- E 112 cm^2